



ROCKVILLE TOWN CENTER

BUS RAPID TRANSIT INTEGRATION STUDY

PREPARED FOR | **The City of Rockville**

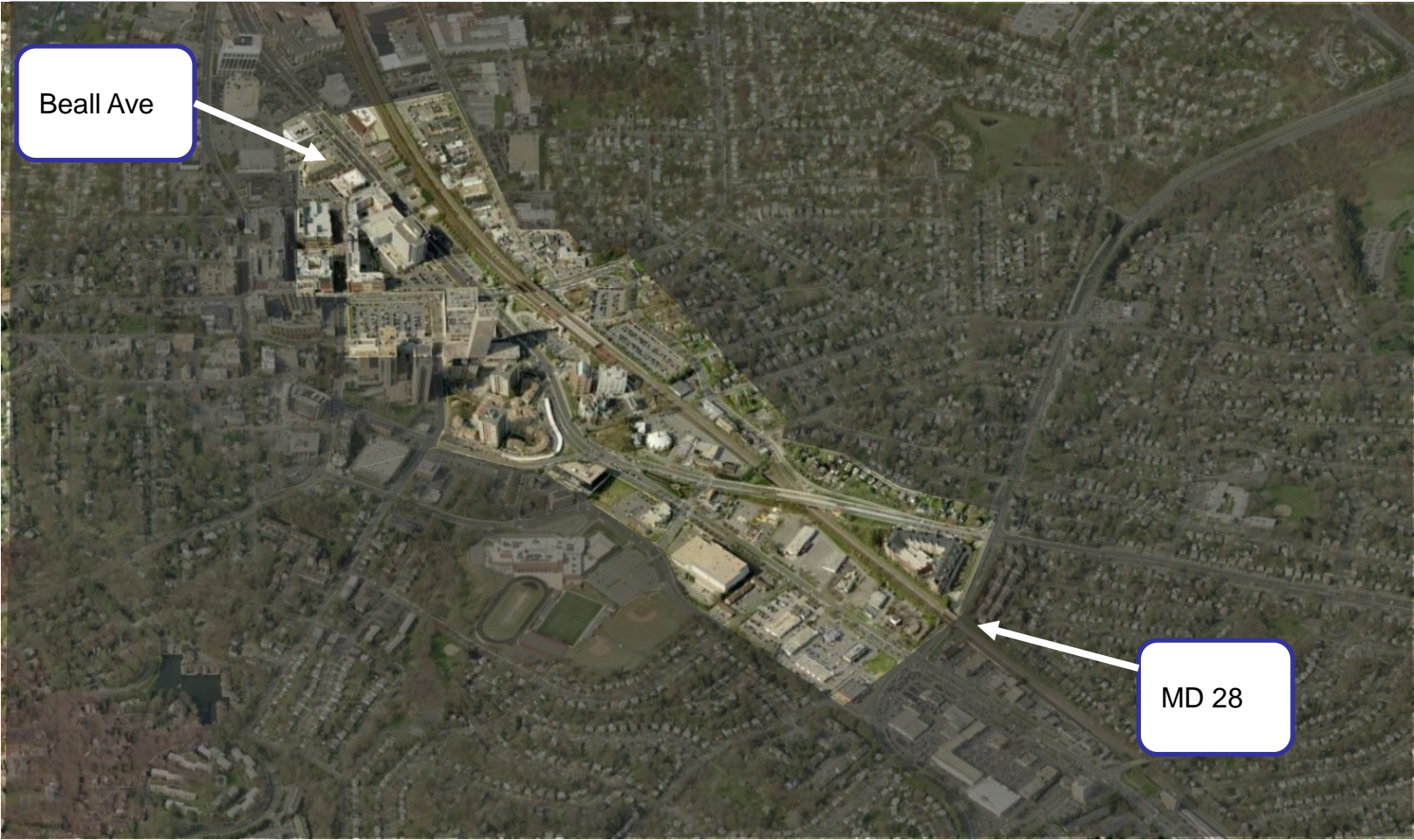
PREPARED BY | **ERM**
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**City Department of Community Planning and
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12.03.2015 Interagency Meeting



BRT brings opportunities and challenges

- New long term investment on MD 355 and Veirs Mill Road
- Address evolving mobility patterns – car, metro, bus, ped, bike, Amtrak, MARC
 - Challenging intersections
 - Heavily used and aging Metro Station
- Build on Town Center development progress
 - County BRT Plan does not call for a specific cross section or BRT treatment within cities
- Revisit Rockville Town Center Master Plan ideas



- January to October 2015
- Staff workshops
- Interagency workshops



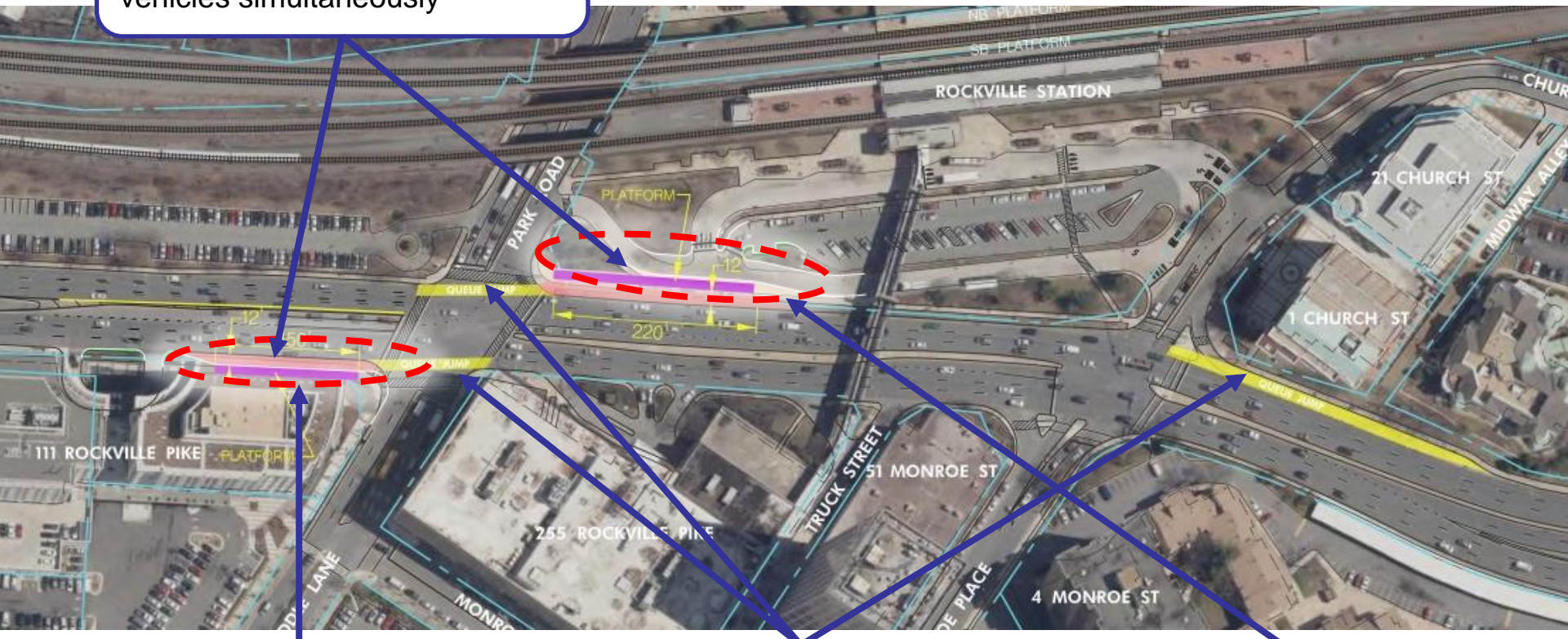
Montgomery County Executive's Office	WMATA
Montgomery County Department of Transportation	Rockville City Manager's Office
State Highway Administration	Rockville Community Planning
Maryland Transit Administration	Rockville DPW
Montgomery County Ride-On	Holland and Knight

- Integration Study initially identified 12 potential route and alignment alternatives
- Narrowed to 6 for study at May interagency workshop
- Narrowed to 3 for further study
 - BRT in mixed traffic with pullouts
 - BRT in a dedicated median on MD 355
 - BRT in a dedicated median on MD 355, through traffic in a tunnel

Design process was iterative; engineering and urban design

Mixed Traffic, Side BRT Station Alignment | Engineering Design Features

Near-side platforms intended to accommodate at least 2 BRT vehicles simultaneously



Sidewalk in front of Choice Hotels headquarters doubles as transit stop.

Opportunities for queue-jumps coming out of stops, and NB at Church Street

Need to reconfigure Metro Station layout slightly

Mixed Traffic, Side BRT Station Alignment | Urban Design Features



Mixed Traffic | Urban Design Features



Euclid Avenue Healthline BRT, Cleveland, OH



Existing MD 355 at Rockville Station

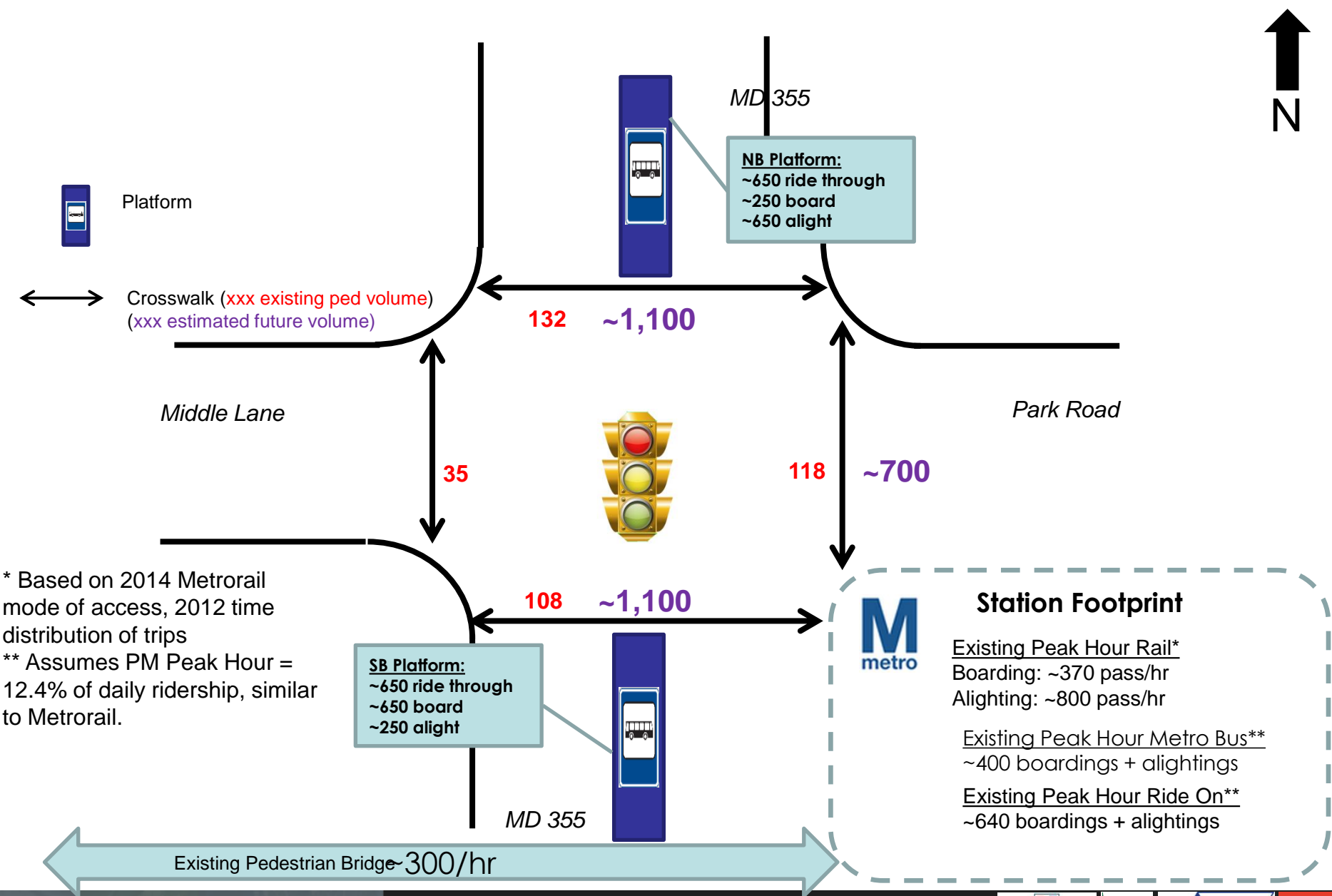


Euclid Avenue Healthline BRT, Cleveland, OH



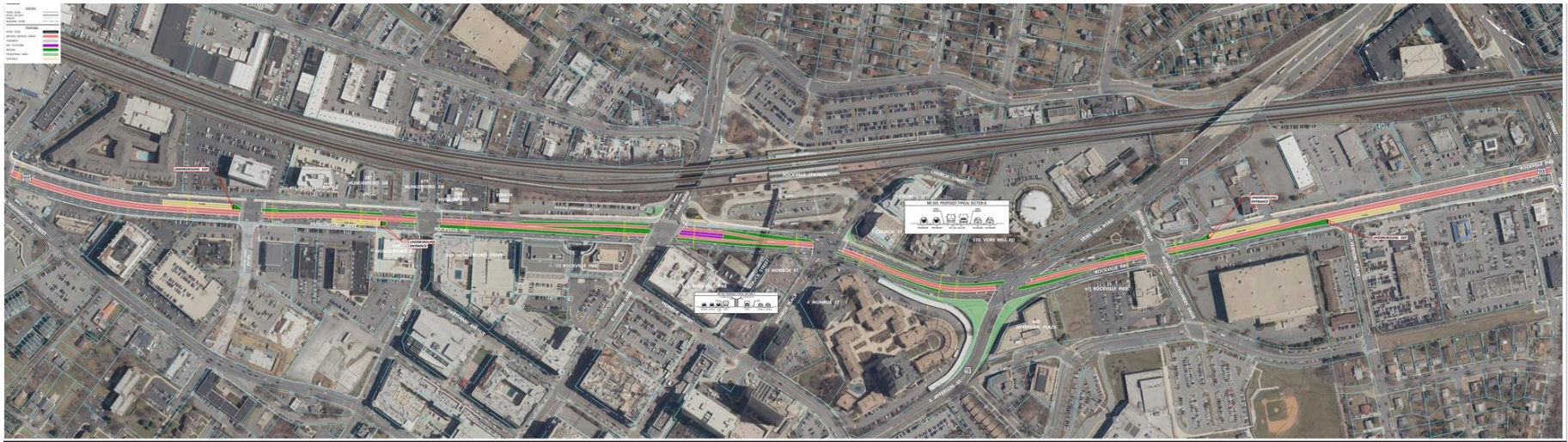
High quality BRT station architecture and platform environments

BRT in Median, at Grade | PM Peak Hour Pedestrian Activity



* Based on 2014 Metrorail mode of access, 2012 time distribution of trips
** Assumes PM Peak Hour = 12.4% of daily ridership, similar to Metrorail.

Continuous dedicated BRT lanes in Median with tunnel for through traffic | Concept 6

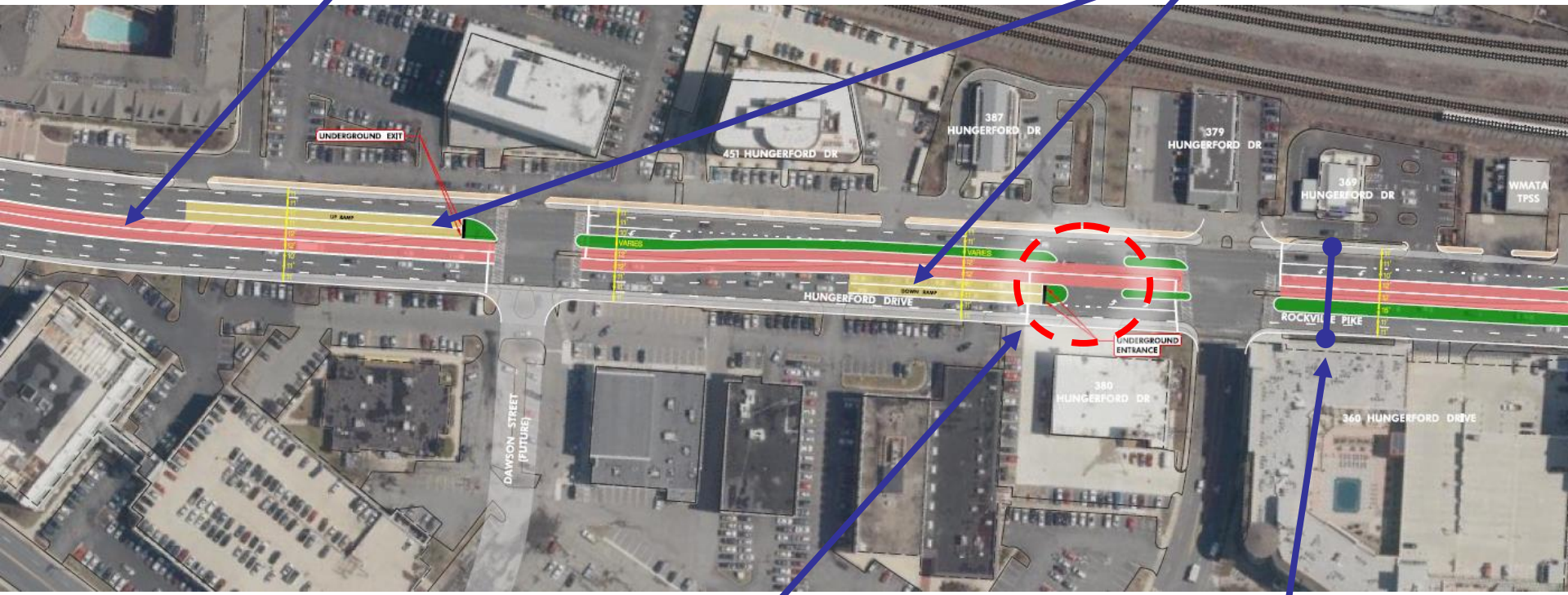


Continuous dedicated BRT lanes in Median with tunnel for through traffic |

Engineering Features

Continuous dedicated BRT lanes in median of 355

Two through lanes in either direction below grade. Tunnel entrances staggered to minimize ROW width.

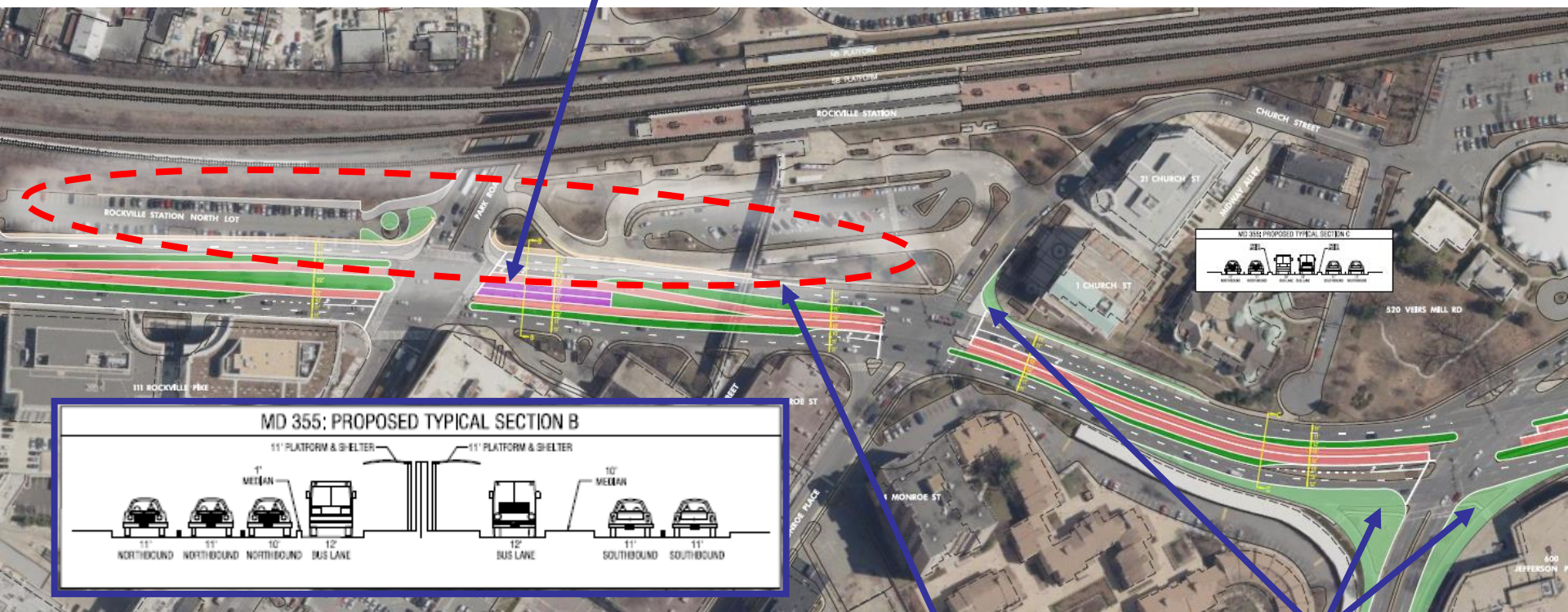


Left turns by emergency vehicles facilitated by breaks in medians, stop signal north of firehouse.

Travel lanes reduced to two in each direction for duration of tunnel. Left turn lanes preserved where they currently exist.

Median with tunnel | Engineering Design Features

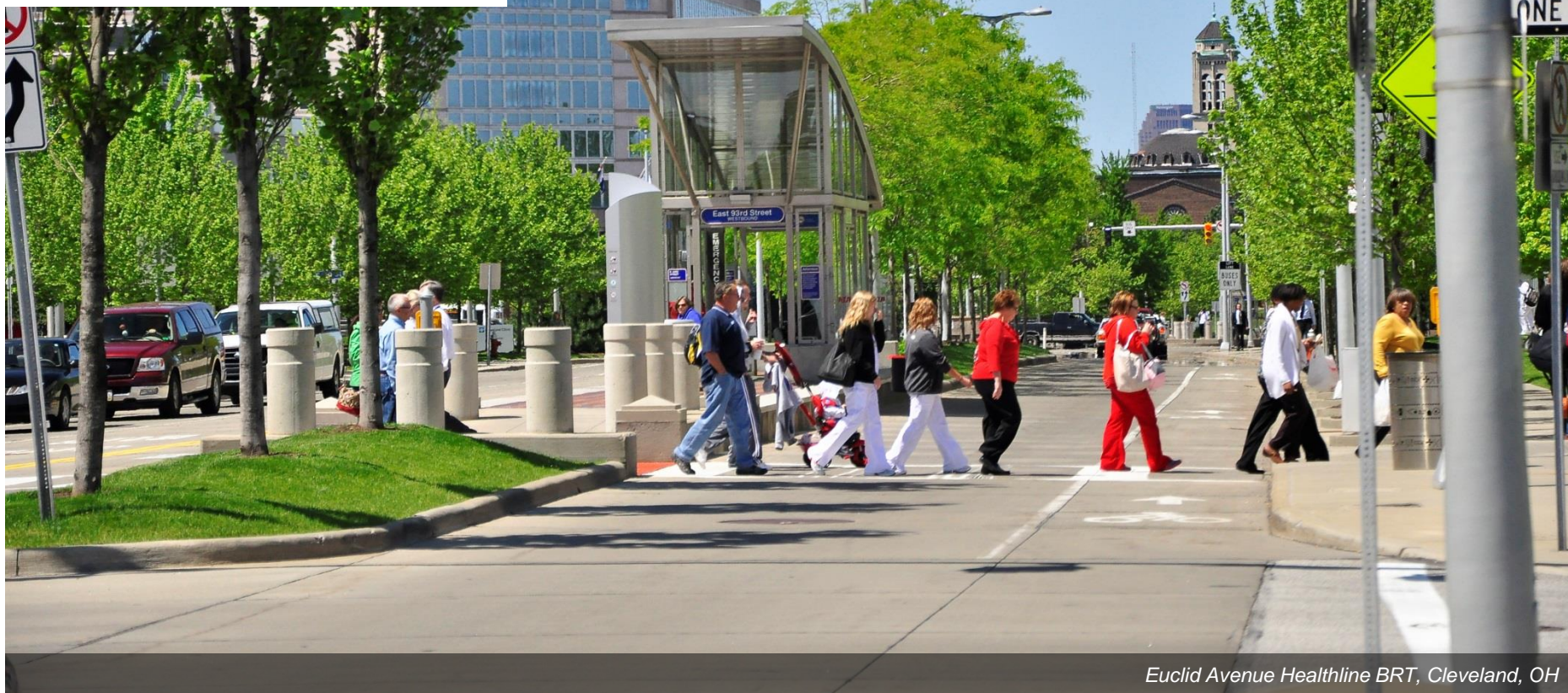
Center platform (approx. 22' wide) south of Park/Middle intersection provides best overall access to Metro Station and Town Center.



Some reconfiguring of Metro Station footprint necessary.

Less surface traffic allows for some reclaiming of paved areas.

Median, with Tunnel | Urban Design Features – Improved Crossings & Medians



Median, with Tunnel | Urban Design Features - Other Signature Gateway Bridges

The Helix Bridge, Singapore



Signature bridge crossing from Metro Station to Town Center

Hilton Pedestrian Bridge, Columbus, OH



High quality BRT station architecture and platform environments

Paleisburg Pedestrian - Cycle Bridge, Netherlands



Stairs, escalator and elevator transition to MD 355 crossing & Metro Station

Paleisburg Pedestrian - Cycle Bridge, Netherlands

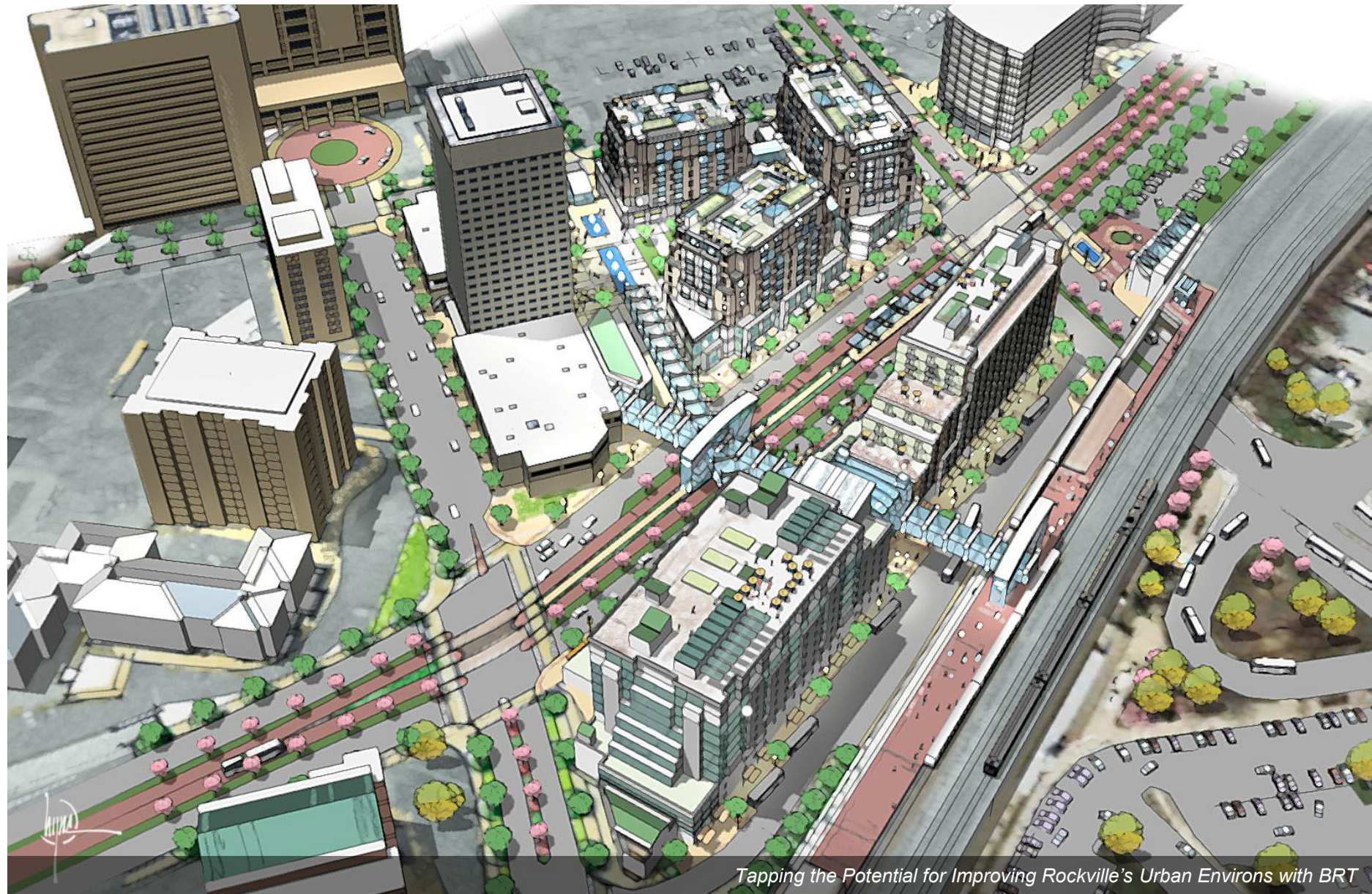


Living bridge and promenade environment over MD 355

Median, with Tunnel | Transit-Oriented Redevelopment Vision



Median, with Tunnel | Transit-Oriented Redevelopment Vision



Tapping the Potential for Improving Rockville's Urban Environs with BRT

Median, with Tunnel | Urban Design Features

1. Improved crosswalks and pedestrian refuges
2. Expanded streetscape walkway environs
3. Continuous planted medians
4. Veteran's Park edge enhancements
5. Road diet for Veirs Mill Road
6. Potential alternate parking solution for residential buildings
7. Fewer travel lanes
8. Diversion of MD 355 thru traffic into tunnel



'The Mixing Bowl' – MD 355 at Veirs Mill Road

- BRT offers opportunities and challenges
- Accommodating BRT through Town Center requires trade-offs between motor vehicle, transit, pedestrian and bicycle needs
- BRT, without taking existing traffic lanes (re-purposing), needs right of way
- Existing right of way is limited, and acquiring it can be costly. An overly wide roadway is not desirable in Town Center
- BRT in mixed traffic with pull-outs and intersection improvements – easy to implement in the short term
- BRT in a median with through traffic in a tunnel - more complex, but offers greater Town Center integration potential and multi-modal benefits